I claim:

1. An error diffusion system, comprising:

5   means for providing a single byte of data indicative of a pixel in a given color space; and

means responsive to said means for providing a single byte of data for providing a super pixel in an m by n byte matrix of color data values indicative of another pixel in another given color space.

10   given color space.

2. An error diffusion system according to claim 1, further comprising:

means responsive to said means for proving a super pixel for printing said another pixel in another given color space.

15   pixel in another given color space.

3. An error diffusion system according to claim 1, wherein said means for printing is an inkjet printer.

20   4. An error diffusion method, comprising:

providing a single byte of data indicative of a pixel in a given color space; and

providing a super pixel m by n byte of data indicative of another pixel in another given color space.

25   given color space.

5. An error diffusion method according to claim 4, further comprising:

printing said another pixel in another given color space on a medium sheet.

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6. An error diffusion system, comprising:

resolution conversion means for transforming a pixel data value expressed as a fixed bit color space value of a given resolution into a like fixed bit color space value of another given resolution; and

color space conversion means for transforming said like fixed bit color space value of another given resolution into a super pixel cell, wherein individual ones of the cells are assigned available output values where the average of the values in said cells is selected to be as close as possible to said fixed bit color space value of another given resolution.

7. An error diffusion method, comprising:

transforming a pixel data value expressed as a fixed bit color space value of a given resolution into a like fixed bit color space value of another given resolution; and

transforming said like fixed bit color space value of another given resolution into a super pixel cell, wherein individual ones of the cells are assigned available output values where the average of the values in said cells is selected to be as close as possible to said fixed bit color space value of another given resolution.

8. A multi-level error diffusion apparatus, comprising:

a processor for creating an m by n super pixel cell as an output pixel value for each individual one of a plurality of single input pixel values indicative of an image to be printed; and

said processor assigning to individual ones of the m by n super pixel cells available printer output color values where the average of the assigned output values are selected to be as close as possible to corresponding individual one of the single input pixel values.

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9. A multi-level error diffusion apparatus according to claim 8, further comprising:

a multi-level printer for receiving the individual ones of the m by n super pixel cells having assigned output values and for converting them into printer data to form a printed

5   image.

10. A multi-level error diffusion method, comprising:

creating an m by n super pixel cell as an output pixel value for each individual one of

10   a plurality of single input pixel values indicative of an image to be printed; and

assigning to individual ones of the m by n super pixel cells available printer output color values where the average of the assigned output values are selected to be as close as possible to corresponding individual one of the single input pixel values.

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